REMARKS

I. Status of the Claims

Claims 1-30, 32, and 34-150 are pending. Claims 31, 33, 151, and 152 were canceled previously. Claims 10-12, 21-23, 27, 28, 30, 32, 34, 36, and 49-150 are withdrawn Claims 1-9, 13-20, 24-26, 29, 35, and 37-48 are under consideration.

Applicants acknowledge with appreciation that the Office has withdrawn the finality of the previous Office Action. Office Action, page 2. Applicants further acknowledge with appreciation that all previous rejections have been withdrawn.

II. Claim Rejections under 35 U.S.C. § 112, ¶2

Claims 16, 18, 19 and 48 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. Office Action, page 3.

Regarding claim 16, the Office states that the claim "does not exclude a polysaccharide having an amino group that is substituted." *Id.* Applicants note, however, that claim 16 depends from claim 1 and so incorporates claim 1's proviso that "if the at least one compound comprising at least one C_5 to C_7 saccharide unit is chosen from polysaccharides, then the amino groups are unsubstituted." In claim 16, therefore, it is only when the at least one C_5 to C_7 saccharide unit is not a polysaccharide that the "at least one amino group is chosen from unsubstituted amino groups and substituted amino groups."

Claims 18 and 19 stand rejected because, according to the Office, the claims recite substitution at C1 or C2, respectively, but "C1 or C2 of the saccharide can only be substituted with one amino group." *Id.* The language "substituted with said at least one

amino group," however, refers to the language of claim 1, and although C1 and C2 may be individually substituted with only one amino group, the saccharide unit can be substituted with more than one amino group.

The Office rejects claim 48 as confusing because it refers to a composition as "heat activated." *Id.* Applicants respectfully point out that the specification on page 7, lines 5-10 describes what is meant by a "heat activated composition." According to the specification, a heat activated composition is "a composition which, for example, conditions the at least one keratinous fiber quantitatively better than the same composition which is not heated during or after application of the composition." Thus, "heat activated" refers to a property of the composition; that is, that the composition is activated when heated.

For these reasons, Applicants submit that the claims as written are definite and respectfully request that the Office withdraw these rejections.

III. Claim Rejections under 35 U.S.C. § 102

A. Woodin

Claims 1-8, 13-16, 20, 24-26, 29, 35, and 45-47 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 5,494,533 to Woodin et al. ("*Woodin*"). Office Action, page 4. Applicants respectfully traverse this rejection.

Woodin teaches a composition comprising certain foam enhancing polymers in an aqueous solvent system. *Woodin*, abstract. The composition is substantially free of surfactant, and comprises a viscosity-enhancing polymer in water. *Id.*, col. 2, lines 52-61. The polymer can be laurdimonium hydroxyethyl cellulose, polyquaternium-11, and

a variety of other polymers, most of which have a quaternary amine. *Id.*, col. 3, line 24 to col. 5., line 58. All of the examples include laurdimonium hydroxyethylcellulose. Some of the examples include one or more additional polymers; for example, example III includes polyquaternium-24 and hydroxyethylcellulose. *Woodin*, however, does not combine a compound comprising at least two quaternary ammonium groups with another compound comprising "at least one C_5 to C_7 saccharide unit substituted with at least one amino group, . . . with the proviso that if the at least one compound comprising at least one C_5 to C_7 saccharide unit is chosen from polysaccharides, then the amino groups are unsubstituted."

A rejection under § 102 is only proper when the claimed subject matter is identically described or disclosed in the prior art. *In re Arkley*, 455 F.2d 586, 587 (CCPA 1972); *see also* M.P.E.P. § 706.02(a) ("For anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly."). Here, the teachings of *Woodin* do not meet this standard.

The Office relies on *Woodin* as teaching cleansing compositions comprising polyquaternium and laurdimonium hydroxyethylcellulose and states that "the laurdimonium hydroxyethylcellulose meets the limitation of an amino polysaccharide in which the amino group is not substituted." Office Action, page 4. The Office also points to *Woodin* at col. 4, lines 44, 45, and 53-61 as teaching "copolymers of saccharides and compatible synthetic monomers . . . which meets the limitation of a compound comprising at least one C_5 to C_7 saccharide units substituted with at least one amino group . . . ." *Id.*

The Office's reliance upon laurdimonium hydroxyethylcellulose, however, is misplaced. U.S. Patent No. 5,962,015 to Delrieu et al. ("*Delrieu*"), previously cited by the Office, teaches that laurdimonium hydroxyethylcellulose is sold under the trademark CRODACEL QL, and that the CRODCEL Q series of polymers all are quaternized cellulose polymers. *Delrieu*, col. 4, line 64 to col. 5, line 38. The nitrogen in a quaternized compound is substituted. Thus, since hydroxyethylcellulose is a polysaccharide, laurdimonium hydroxyethylcellulose does not meet the proviso of claim 1 that the amino group is unsubstituted.

Neither does the teachings of *Woodin* at col. 4, lines 44, 45, and 53-61 regarding "copolymers of saccharides and compatible synthetic monomers" anticipate the claimed invention. Although *Woodin* mentions glucosamine and galactosamine at col. 4, line 56, *Woodin* is listing examples of saccharides that can be combined with synthetic monomers to form copolymers. *Woodin*, col. 4, lines 53-58 ("Copolymers of saccharides and synthetic monomers useful in the present invention encompass those containing the following saccharides . . . .") *Woodin* does not teach that the amino groups in the resulting copolymer are unsubstituted. Neither does *Woodin* exemplify any copolymers comprising glucosamine or galactosamine in which the amino groups are unsubstituted. Further, *Woodin* does not teach combining copolymers comprising glucosamine or galactosamine with a compound comprising at least two quaternary ammonium groups. Accordingly, even if, for the sake of argument, one ignored Woodin's teaching that the glucosamine or galactosamine are part of a copolymer and argued that those compounds are C_5 to C_7 saccharide units substituted with at least one

amino group, neither of those compounds is combined with the second element of claim 1 - a compound comprising at least two quaternary ammonium groups.

Because *Woodin* fails to teach each element of the claims, Applicants respectfully submit that the rejection under 35 U.S.C. § 102 should be withdrawn.

B. Brode

Claims 1-9, 13, 16, 17, 20, 24-26, 29, 35, 39, 40 and 45-48 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 4,913,743 to Brode et al. ("*Brode*"). Office Action, page 5. The Office further states that U.S. Patent No. 4,767,463 to Brode et al. also anticipates the same claims in the same manner. *Id.* at 6. Applicants respectively traverse both rejections for the following reasons.

Brode teaches compositions comprising glycosaminoglycan and cationic polymers. *E.g.*, *Brode*, Abstract. Glycosaminoglycans are polysaccharides that comprise the saccharide unit hexosamine. *Id.*, col. 3, lines 18. *Brode* teaches that hyaluronan and derivatives thereof are particularly preferred for use in the invention. *Id.*, col. 3, lines 44-49. *Brode* further teaches that "any cationic polymer may be used which, when combined with glycosaminoglycan, provides a modification in the properties of the glycosaminoglycan . . . ." *Id.*, col. 3, lines 61-64. Numerous examples of suitable cationic polymers are taught.

A rejection under § 102 is only proper when the claimed subject matter is identically described or disclosed in the prior art. *In re Arkley*, 455 F.2d 586, 587 (CCPA 1972). Here, *Brode* broadly teaches the combination of glycosaminoglycan and a cationic polymer, but those broad categories are not the claimed invention. Instead, claim 1 recites a composition that comprises ". . . (a) at least one compound comprising

at least two quaternary ammonium groups; and (b) at least one compound comprising at least one C_5 to C_7 saccharide unit substituted with at least one amino group . . . with the proviso that if the at least one C_5 to C_7 saccharide unit is chosen from polysaccharides, then the amino groups are unsubstituted."

A glycosaminoglycan is a C_6 aminopolysaccharide, but unlike the hexosamine of which it is composed, in the glycan form the amino group is normally substituted. For example, in hyaluronan, chondroitin sulfate, keratan, and dermatan, the amino group is acylated. In heparin, the amino group is sulfated. Glycosaminoglycans, therefore, do not necessarily lack substitution of the amino groups. To the contrary, the common glycosaminoglycans, including hyaluronan, *Brode*'s preferred compound, have substituted amino groups. Thus, a teaching of "glycosaminoglycan" does not identically describe the compound of the claimed composition because polysaccharides in which the amino groups are substituted are excluded for the scope of the claims by the proviso of claim 1. A reference must "clearly and unequivocally disclose the claimed [composition] or direct those skilled in the art to the [composition] without any need for picking, choosing, and combining various disclosures . . . ." *In re Arkley*, 172 U.S.P.Q. 524, 526 (C.C.P.A. 1972).

Nothing in *Brode* teaches that the glycosaminoglycan should be one in which the amino groups are unsubstituted. Further, non of the examples include a glycosaminoglycan in which the amino group is unsubstituted. *Brode* therefore fails to identically describe this element of the claims and so for at least this reason fails to anticipate the claims. Accordingly, Applicants respectfully request that the Office withdraw both rejections based upon *Brode*.

III. Rejection under 35 U.S.C. § 103

The Office rejects claims 14, 15, 37, 38, and 41-44 under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 4,913,743 to Brode et al. ("*Brode*") in view of U.S. Patent No. 4,743,442 to Raaf et al ("*Raaf*"). Office Action, page 7. The Office reiterates its position that *Brode* teaches compositions comprising glycosaminoglycans and cationic polymer and that these compounds are within the scope of the claims. *Id.* The Office acknowledges that *Brode* does not teach monosaccharides such as glucose in the composition. *Id.* *Raaf* is relied upon as teaching a composition comprising glucose and other components for skin care. *Id.* According to the Office, both compositions are used "for the same general purpose." *Id.* Relying on *In re Kerkhoven*, 626 F.2d 846, 850, 205 U.S.P.Q 1069, 1072 (C.C.P.A. 1980), the Office asserts that the ordinary artisan would therefore have been motivated to combine the compositions to produce a third composition that would also be used for the purpose of skin care. Applicants respectfully traverse this rejection.

To establish a *prima facie* case of obviousness, the reference (or references when combined) must teach or suggest all the claim limitations. M.P.E.P. § 2143 (8th ed. Rev. 2, 2004). Here, as discussed *supra*, *Brode* does not teach that the glycosaminoglycans should not include substituted amino groups, as they normally do. Because *Brode* does not teach compositions comprising glycosaminoglycans in which the amino groups are unsubstituted, as recited in claim 1, *Brode* does not teach each and every limitation of claim 1. *Raaf*, the teachings of which relate to the inclusion of mineral salts in skin care compositions, does not remedy this defect. For at least this

reason, Applicants submit that a *prima facie* case has not been established. Accordingly, they respectfully request that the Office withdraw this rejection.

IV. Obviousness-Type Double Patenting

A. U.S. Patent No. 6,486,105

Claims 1-9, 13-20, 37-40, 43, 44, 47 and 48 are rejected on the grounds of obviousness-type double patenting as being unpatentable over claims 1-11, 13-19, 26, 31-36, 38, 39, 42, and 43 of U.S. Patent No. 6,486,105. Office Action, page 8. According to the Office, the conflicting claims are not patentably distinct because C_5 saccharides are recited in both claims sets and the compound comprising at least two quaternary groups is the same. *Id.* at 8-9.

Applicants traverse this rejection at least because there is no requirement that the at least one sugar recited in the issued claims contain an amino group, as recited in claim 1. Nevertheless, solely in order to expedite prosecution, Applicants will provide a terminal disclaimer upon the indication of allowable subject matter.

B. Co-pending Application No. 09/820,648

The Office also provisionally rejects claims 1-9, 13-20, 24-26, 29, 35, and 37-48 on the grounds of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 9, 10, 12-15, 19-21, 24, and 30-43 of co-pending application no. 09/820,648. Office Action, page 9. The Office finds that the film-forming agent of co-pending claim 1 can be a polyquaternium and that the amino saccharide is the same in both sets of claims. *Id.*

Applicants respectfully request that this provisional rejection be held in abeyance until such time as the Office indicates that the claims are allowable. If the co-pending application has issued with conflicting claims, Applicants will then provide a terminal disclaimer.

Conclusion

In view of the foregoing remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: June 2, 2006

By: 
Jessica H. Roark
Reg. No. 54,869